

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A countercurrent chromatography apparatus comprising:
a plurality of plates, wherein at least one of said plurality of plates comprises at least first and second interleaved spiral flow channels formed therein, wherein each of said spiral flow channels comprises ~~includes~~ a first end and a second end, wherein said first ends are closer to a control axis of said plate than said second ends, and wherein the second end of said first spiral flow channel is in fluid communication with the first end of the second spiral flow channel.
2. **(Original)** The apparatus of Claim 1, additionally comprising a plurality of septa positioned between pairs of said plates, wherein at least some of said plurality of septa comprise a hole which is positioned to establish a fluid connection between a second end of a spiral flow channel in one of said plurality of plates and a first end of a spiral flow channel in a second of said plurality of plates.
3. **(Original)** The apparatus of Claim 1, additionally comprising upper and lower plates, and wherein at least one of said upper plate and said lower plate comprises a gear.
4. **(Currently amended)** A plate for use in countercurrent chromatography comprising:
a first surface;
a second opposed surface;
a plurality of interleaved spiral flow channels, each having an inner end and an outer end; and
at least one flow path connecting an outer end of at least one of said interleaved spiral flow channels to an inner end of a different one of said interleaved spiral flow channels.
5. **(Original)** The plate of Claim 4, wherein said flow channels comprise grooves formed in said first surface.
6. **(Original)** The plate of Claim 5, wherein said flow path comprises a groove formed in said second surface.

7. **(Currently amended)** The plate of Claim 6, wherein said groove extends substantially radially from a point closer to the outer surface of said second opposed surface to a point closer to the control axis of said second opposed surface. is substantially linear.

8. **(Original)** The plate of Claim 4, wherein said plurality of spiral flow channels have a substantially rectangular cross section.

9. **(Original)** The plate of Claim 5, comprising four interleaved spiral grooves in said first surface.

10. **(Original)** The plate of Claim 6, comprising four interleaved spiral grooves in said first surface and four radially extending grooves in said second surface.

11. **(Currently amended)** A countercurrent chromatography apparatus comprising a column assembly, wherein the column assembly comprises a plurality of coupled separation disks, and wherein each of said separation disks comprises at least two interleaved spiral flow channels, wherein each of said interleaved spiral flow channels comprises a first end and a second end, wherein said first ends are closer to a control axis of said separation disks than said second ends, and wherein the second end of at least one of said interleaved spiral flow channels is in fluid communication with the first end a different one of said interleaved spiral flow channels.

12. **(Original)** The apparatus of Claim 11, wherein outer ends of each spiral flow channel are in fluid communication with inner ends of different spiral flow channels.

13. **(Canceled)**

14. **(Canceled)**

15. **(Canceled)**

16. **(Canceled)**

17. **(Canceled)**

18. **(Canceled)**

19. **(Canceled)**

20. **(Currently amended)** A countercurrent chromatography apparatus comprising:
a series of coupled plates;

groove means in said plates for routing fluid through a plurality of spiral flow paths, wherein each of said spiral flow paths comprises a first end and a second end, wherein said first ends are closer to a control axis of said plates than said second ends, and wherein the second end of at least one of said spiral flow paths is in fluid communication with the first end a different one of said spiral flow paths.

21. **(Currently amended)** The apparatus of Claim 20[[]], wherein said groove means is provided on first and second sides of at least one of said plates.

22. **(Canceled)**

23. **(Canceled)**

24. **(Canceled)**

25. **(New)** The apparatus of Claim 21 wherein said groove means on said first side of at least one plate is a plurality of spiral flow paths and said groove means on said second side of at least one plate is a substantially radial flow path connecting the outer end of at least one spiral flow path to the inner end of a different spiral flow path.